Central Valley Regional Water Quality Control Board
26/27 October 2006 Board Meeting

Response to Comments
University of California (UC)
UC Davis Center for Aquatic Biology and Aquaculture
Renewal of Waste Discharge Requirements (NPDES No. CA0083348)
And Monitoring and Reporting Program

The following are Regional Water Quality Control Board (Regional Water Board) staff responses to comments submitted by interested parties regarding the proposed Waste Discharge Requirements (WDR) and Monitoring and Reporting Order (Orders) for the University of California, Davis Center for Aquatic Biology and Aquaculture. Public comments regarding the proposed Orders were required to be submitted to the Regional Water Board office by 21 September 2006 in order to receive full consideration.

The Regional Water Board office received comments regarding the proposed Order from the following parties:

- The California Sportfishing Protection Alliance,
- The University of California, Davis (two separate submittals), and
- The Department of Water Resources Staff person: Mr. Ted Frink.

The comments are summarized below, followed by staff responses.

CALIFORNIA SPORTFISHING PROTECTION ALLIANCE (CSPA) COMMENTS

COMMENT NO. 1: The Discharger has submitted an incomplete Report of Waste Discharge (RWD). In accordance with Federal Regulations 40 CFR Part 122.21 (e) and 122.4, the Regional Water Board shall not adopt the proposed permit.

RESPONSE:
The Discharger has submitted a complete NPDES permit application for renewal of their NPDES permit in compliance with all State and Federal requirements and has submitted all required permit application information. The information required to be submitted by the Discharger in the current NPDES permit (Waste Discharge Requirements (WDR) Order No. 99-017), such as the monitoring and reporting of California Toxic Rule (CTR) constituents, are independent of the requirements of a complete RWD.

The regulatory requirements of 40 CFR Parts 122.21 (e) and 122.4 pertain to the permit application. The submittal of CTR data as a requirement of the existing Order pertains to permit compliance. Staff concludes that the Discharger submitted a complete NPDES permit application.

COMMENT NO. 2: Proposed Permit Discharge Prohibition No. 4 allows the surface water discharge of Malachite-Green and Nitrofurazone and other aquaculture drugs and/or chemicals simply by notifying the Regional Water Board in violation of Federal Regulation, 40 CFR 122.4 (a), (d) and (g).

RESPONSE:
The proposed Order proposes to prohibit the discharge of malachite-green and nitrofurazone to surface waters. In addition, the discharge of any other aquaculture drugs and/or chemicals is also prohibited unless further authorized by the Regional Water Board and waste discharger requirements are established if determined necessary. The language in the proposed Order to be considered for Regional Water Board adoption has been revised to further clarify the proposed prohibitions of discharge in the proposed Order.

COMMENT NO. 3. The Basin Plan, Implementation, Page IV-24-00, prohibits the discharge of wastewater to low flow streams as a permanent means of disposal and requires the evaluation of land disposal alternatives, Implementation, Page IV-15.00, Policies and Plans (2) Wastewater Reuse Policy.

RESPONSE
The Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) does not explicitly prohibit discharge of wastewater to low flow streams as a permanent means of disposal. As described in the proposed Order, Finding No. 5, the Discharger's effluent from the Aquatic Center facility may serve as irrigation water for research activities on adjacent cropland, owned by the Discharger. This use of effluent for irrigation of adjacent University-owned agricultural land is an increase in land disposal of wastewater from the existing Order No. 99-017. The proposed Order sets prohibitions, effluent limitations and monitoring and reporting requirements to support the use of treated effluent for research irrigation purposes. The Discharger is maintaining the same facility operation and surface water discharges as allowed in their existing NPDES permit.

COMMENT NO. 4. The identified wetlands are Waters of the State and the proposed Permit is not sufficient to assure compliance with the applicable requirements of the Clean Water Act.

RESPONSE
As stated in the proposed Order, Finding No. 3, effluent from the Putah Creek Research Facility may be diverted to a series of ponds established for both wastewater disposal and for wetlands research studies. The ponds and

wetlands are considered a part of the Putah Creek Research Facility and their wastewater treatment process.

Discharge of water from these wetlands to surface water is prohibited. The Discharger is required to manage the ponds and wetlands to prevent vector problems, nuisance, and toxicity to wildlife, and to minimize the occurrence of avian botulism, other infectious diseases, and bioaccumulation in the food chain.

For consistency with other NPDES permits that allow wastewater to be discharged to ponds, the proposed Order includes requirements for wastewater entering the ponds and wetlands. In addition, groundwater monitoring requirements are included in the proposed Monitoring and Reporting Program to minimize degradation to groundwater.

COMMENT NO. 5. The proposed Permit improperly states that wastewater is discharged to "reclamation".

RESPONSE
The commenter states that in Finding No. 7 the term "reclamation" is used to describe effluent from the Aquatic Center proposed to be used for agricultural irrigation purposes. Staff concurs that the use of the term "reclamation" is in error because the proposed Order does not propose the reuse of treated municipal wastewater. Staff will revise the language in the final proposed WDR Order to be considered for Regional Water Board adoption to correct this error.

COMMENT NO. 6. The failure to adequately monitor discharges to the isolated evaporation percolation pond for disposal and numerous other unlined ponds and wetlands is unprotective of groundwater and fails to comply with the State's antidegradation policy.

RESPONSE
The proposed Monitoring and Reporting Program (MRP), and specifically, the parameters to be monitored in groundwater sampling have been modified to be consistent with groundwater monitoring requirements recently adopted by the Regional Water Board in other NPDES permits. The proposed MRP to be considered for Regional Water Board adoption has been modified to include the following groundwater monitoring parameters:

<u>Quarterly Groundwater Monitoring</u>

- Nitrates (as N)

- Total Kjeldahl Nitrogen (as N)

Annual Groundwater Monitoring

- Title 22 metals to include:
  - arsenic,
  - cadmium,
  - chromium,
  - copper,
  - lead,
  - mercury,
  - nickel, and
  - zinc.

Note that monitoring for fecal or total coliform is not required because coliform is an indicator of the presence of feces from warm-blooded animals or humans.

COMMENT NO. 7. The use of Best Management Practices (BMPs) does not conform to the Federal Regulations (40 CFR 122.44(k)) when numeric effluent limitations are feasible.

RESPONSE

As stated in Finding No. 41, the BMPs contained in the proposed Order are proposed to "work in conjunction with the effluent limitations to reduce the quantity of pollutants discharged to the receiving water". 40 CFR Part 122.44(k) authorizes the use of BMPs to control or abate the discharge of pollutants in several instances. Part 122.44(k)(4) states, "The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA." As stated in the proposed permit in Section E, the requirement to develop BMPs "are to prevent or minimize the generation and discharge of wastes and pollutants to the waters of the United States and waters of the State." These requirements, in conjunction with the chemical specific limitations, fulfill the requirements of 40 CFR Part 122.44(k).

COMMENT NO. 8. The proposed Permit contains an Effluent Limitation for acute toxicity that allows mortality that exceeds the Basin Plan water quality objective and does not comply with Federal regulations, at 40 CFR 122.44 (d)(1)(i).

RESPONSE

The proposed Order contains several mechanisms to ensure that effluent discharges do not cause acute or chronic toxicity in the receiving water. Receiving water limitations protect from the discharge causing toxicity in the

receiving water. The proposed Order also includes end-of-pipe effluent limitations for all toxic pollutants that have reasonable potential to cause or contribute to an exceedence of water quality objectives in the receiving water.

Where appropriate, the development of effluent limitations are based on aquatic life toxicity criteria. However, these limitations do not address the synergistic effects that can occur in mixtures of pollutants, the synergistic effects that can occur when effluent is mixed with receiving water, or the toxicity of pollutants for which there are no criteria. Therefore, the proposed Order also requires whole effluent chronic toxicity testing, which identifies both acute and chronic effluent toxicity. If the testing shows that the discharge causes, has the reasonable potential to cause, or contributes to an in stream excursion of the water quality objective for toxicity, Provisions in the Orders require the Discharger to investigate the causes of, and identify corrective actions to eliminate, the toxicity.

The requirements in the proposed Order establishes additional thresholds to control acute toxicity in the effluent: No less than 70% survival in one test and a median of no less than 90% survival in three consecutive tests. Some in-test mortality can occur by chance. To account for this, the acute toxicity test acceptability criterion allows ten percent mortality (requires 90% survival) in the control. Thus, the acute limitations allow for some test variability, but impose ceilings for exceptional events (i.e. 30% mortality or more), and for repeat events (i.e., median of three events exceeding mortality of 10%).

The proposed Order protects aquatic life beneficial uses by implementing numerous measures to control individual toxic pollutants and whole effluent toxicity. Both the effluent and receiving water limitations are consistent with other NPDES permits recently adopted by the Regional Water Board and throughout the State and Staff believes they are appropriate.

COMMENT NO. 9. The proposed Permit does not contain Effluent Limitations for chronic toxicity and therefore does not comply with Federal regulations, at 40 CFR 122.44 (d)(1)(i).

RESPONSE

The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) does not contain direction or procedures regarding the appropriate form and implementation of chronic toxicity limits. This has resulted in the petitioning of a NPDES permit in the

Los Angeles Region[1] that contained numeric chronic toxicity effluent limitations. As a result of this petition, the State Water Board adopted WQO No. 2003-012 directing State Water Board staff to revise the toxicity control provisions in the SIP. The State Water Board states the following in WQO 2003-012, "*In reviewing this petition and receiving comments from numerous interested persons on the propriety of including numeric effluent limitations for chronic toxicity in NPDES permits for publicly-owned treatment works that discharge to inland waters, we have determined that this issue should be considered in a regulatory setting, in order to allow for full public discussion and deliberation. We intend to modify the SIP to specifically address the issue. We anticipate that review will occur within the next year. We therefore decline to make a determination here regarding the propriety of the final numeric effluent limitations for chronic toxicity contained in these permits.*" The process to revise the SIP is currently underway. Proposed changes include clarifying the appropriate form of effluent toxicity limits in NPDES permits and general expansion and standardization of toxicity control implementation related to the NPDES permitting process.

Since the toxicity control provisions in the SIP are under revision it is infeasible to develop numeric effluent limitations for chronic toxicity. Therefore, the proposed WDR Order require that the Discharger meet best management practices for compliance with the Basin Plan's narrative toxicity objective, as allowed under 40 C.F.R. 122.44(k). The proposed Order includes Provision VI.C.2.a., which contains a numeric chronic toxicity monitoring trigger and explicit protocols for accelerated monitoring and toxicity reduction evaluation implementation if a pattern of effluent toxicity is observed. This provision requires the Discharger to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity.

COMMENT NO. 10. The proposed Permit must include an effluent limitation for mercury.

RESPONSE

9. Staff concurs with this comment. Staff will revise the proposed Order to be considered for Regional Water Board adoption to include a mercury effluent limitation. Inclusion of a mercury limitation is similar to the inclusion of effluent limitations for constituents that the Discharger may potential be used in future research projects. Because the Discharger has

[1] In the Matter of the Review of Own Motion of Waste Discharge Requirements Order Nos. R4-2002-0121 [NPDES No. CA0054011] and R4-2002-0123 [NPDES NO. CA0055119] and Time Schedule Order Nos. R4-2002-0122 and R4-2002-0124 for Los Coyotes and Long Beach Wastewater Reclamation Plants Issued by the California Regional Water Quality Control Board, Los Angeles Region SWRCB/OCC FILES A-1496 AND 1496(a)

control over the use of mercury, and mercury compounds, the Discharger is expected to be able to comply with final limitations upon adoption of this Order.

COMMENT NO. 11. The Discharger adds the antibiotic Oxyteracycline to fish food which in turn is discharged to surface waters. The proposed Permit does not contain an Effluent Limitation for Oxyteracycline which violates Federal Regulation, 40 CFR 122.4 (a), (d) and (g).

RESPONSE

Oxytetracycline used in fish food formulations has not been determined to present a reasonable potential to cause or contribute to an excursion of water quality objectives in NPDES permits for aquaculture facilities recently adopted by the Regional Water Board and by the the U.S. Environmental Protection Agency (EPA) in a General NPDES Permit for aquaculture facilities in USEPA Region 10.

In the development of NPDES permits for California Department of Fish and Game (DFG) aquaculture facilities, the Regional Water Board considered the results of acute and chronic aquatic life toxicity testing conducted by the DFG Pesticide Unit for Oxytetracycline used in an immersion bath treatment. (Testing using an immersion bath treatment results in a higher water column concentration of oxytetracycline than found in a fish food formulation.)

As explained in Finding No. 27 of the proposed Order, results of acute toxicity tests using *Ceriodapnia dubia* indicated a 96-hour No Observed Adverse Effect Level (NOAEL) of 40.4 mg/L. Results of chronic toxicity tests using *Ceriodapnia dubia* showed a 7-day Lowest Observed Adverse Effect Level (LOAEL) for reproduction of 48 mg/L. The estimated maximum discharge concentration of 0.2 mg/L of oxytetracycline from the immersion treatments and the estimated maximum discharge concentration of 2.0 mg/L from the food treatment at the CABA facility are both less than the lowest NOEC and NOAEL.

Consistent with the DFG permit, the proposed Order does not include water quality-based effluent limitations for oxytetracycline; however, the reporting of the use of oxytetracycline, as specified in the Monitoring and Reporting Program, together with BMPs to control the generation and discharge of solids and chemicals, is protective of the beneficial uses of the receiving waters.

The proposed Order includes a Reopener that states that if additional information becomes available regarding the use or toxicity of oxytetracycline,

the Regional Water Board will re-evaluate whether discharge from the CABA facility may cause, have the reasonable potential to cause, or contribute to an excursion of Basin Plan objectives for toxicity, and numeric effluent limitations may be added.

COMMENT NO. 12. The Discharge Specifications/Pond Disposal Limitations Section of the proposed Permit fails to specify the "design seasonal precipitation" as 100 year.

RESPONSE

The proposed MRP includes the requirement of a minimum one-foot of freeboard to be maintained in the ponds at all times to prevent overflows. Additionally, there is also the requirement that there be no discharge of wastewater from the percolation pond for the Putah Creek Research Facility. Staff has determined that these Order requirements are protective and adequate to prevent overflows.

COMMENT NO. 13. Proposed Permit Provision No. 3 requires the Discharger to conduct an assessment of California Toxic Rule (CTR) and National Toxic Rule (NTR) compliance which conflicts with the language in the Monitoring and Reporting Program that only requires sampling for priority pollutant metals.

RESPONSE

The CTR and NTR monitoring requirements included in Provision No. 3 of the proposed Order are necessary for the Discharger to complete the requirements of the California Water Code (CWC) Section 13267 Technical Report letter sent to all NPDES permitted facilities in 2001. The monitoring requirements included in the proposed MRP are for the Discharger to conduct sampling for priority pollutant metals that is independent of the previously required monitoring of the CWC Section 13267 requirements issued in 2001.

COMMENT NO. 14. The Effluent Limitation for formaldehyde is not protective of the beneficial uses of the receiving stream and is in excess of the Basin Plan chemical constituents water quality objective in violation of Federal Regulation 40 CFR 122.44.

RESPONSE

Formaldehyde is a compound contained in formalin, which is approved for use through the US Food and Drug Administration's New Animal Drug Application (NADA) program in controlling external protozoa and monogenetic trematodes on fish, and for controlling fungi of the family *Saprolegniacae* in food-producing aquatic species (including trout and salmon). For control of

other fungi, formalin may be used under an Investigational New Animal Drug (INAD) exemption. Staff determined that a reasonable potential exists for formaldehyde to be discharged at levels that cause or have the reasonable potential to cause, or contribute to an excursion of the narrative water quality objective for toxicity in the Basin Plan. Accordingly, the proposed Order includes water quality-based effluent limitations for formaldehyde based on Basin Plan narrative toxicity objectives.

The taste and odor threshold for formaldehyde has been established as a proposed monthly average effluent limitation based on the Basin Plan's chemical constituents objective. The proposed instantaneous maximum effluent limitation was established based on actual toxicity testing performed by the California DFG. Staff believes these limitations will protect the beneficial uses of the receiving water by meeting the water quality objectives based on both human health and aquatic life.

UNIVERSITY OF CALIFORNIA (DISCHARGER) COMMENTS

COMMENT NO. 1. Classification as a Cold Water Concentrated Aquatic Animal ("CAAP") Facility, Findings Nos. 9-10 and 11.

The Discharger requests that the Regional Water Board delete or amend the classification of the Discharger as a CAAP facility.

RESPONSE

Staff have reviewed the request and examined the regulations contained in 40 CFR § 122.24(c) pertaining to the case-by-case designation of a facility designated as a CAAP facility. The CABA facility does not meet the criteria in appendix C of 40 CFR Part 122 and, in the opinion of Regional Water Board staff, should be classified as a research facility and not classified as a CAAP facility. The facility discharges pollutants to waters of the United States and is therefore required to obtain an NPDES permit. Staff will modify the final proposed Order to be considered for Regional Water Board adoption to remove the designation of the CABA facility as a CAAP, and refer to the CABA facility as a research facility. However, the removal of this designation does not changes the requirements proposed in the Order.

COMMENT NO. 2. Proposed Electrical Conductivity (EC) Limit. Finding Nos. 7, 8, and 28; Effluent Limitations Nos. 1 & 2.

The Discharger requests that the EC effluent limitation for the two CABA facilities either be deleted or revised to 1,000 µmhos/cm from the proposed limitation of

700 µmhos/cm. The commenter states that an effluent limitation of 1000 µmhos/cm would be protective of any agricultural crops using the receiving waters as irrigation downstream of the facilities.

RESPONSE

EC effluent limitations have been included in the proposed Order to protect the beneficial uses of the receiving water and to address salinity concerns in the Delta. EC effluent data provided by the Discharger on 11 September 2006, for the monitoring time period of September 2003 through July 2006, indicate that the EC in the two discharges range as follows:

Aquatic Center:	542 umhos/cm to 795 umhos/cm
Putah Creek Research Facility:	450 umhos/cm to 800 umhos/cm

Staff agrees that the Discharger will have difficulty complying with the proposed EC effluent limitation of 700 umhos/cm for its two discharges.

In order to not allow an increase of salinity discharges into surface waters that drain into the Delta, yet to set an EC limitation that is feasible for the Discharger to comply, staff has replaced the previously proposed average monthly effluent limitation (AMEL) of 700 umhos/cm for EC with an AMEL of 800 µmhos/cm for both discharges. The data submitted by the Discharger verifies that the Discharger shall be able to comply with the EC limitations, therefore consideration of a compliance schedule for EC is not necessary.

These newly proposed EC effluent limitations allow the Discharger to continue discharging their current amount of salinity. The proposed Order also requires the Discharger to conduct and implement a Salinity Minimization Study as part of the required Best Management Practices Plan.

The EC limitation proposed in the Order will prevent the Discharger from increasing its current salinity loading to the receiving water, which ultimately drains into the Delta. Staff does not agree with the Discharger's request for an EC limitation of 1000 umhos/cm because it will allow the Discharger to increase the discharge of salinity to a level greater than its current discharge.

The proposed Order contains a reopener provision allowing the Regional Water Board to revise the EC effluent limitation if further information from the required monitoring or other salinity study efforts indicates that a

revised limitation is necessary to protect the beneficial uses of the receiving waters.

COMMENT NO. 3. Groundwater Monitoring Requirements. Findings No. 40; Groundwater Provisions Nos. 1-2; and Groundwater Monitoring Requirements.

The Discharger requests the groundwater monitoring requirements in the proposed permit be removed. The Discharger states that the groundwater monitoring provisions are not necessary to protect the quality of groundwater in the region and not economically cost effective.

RESPONSE

Staff is cognizant of the expenses involved with groundwater monitoring activities. In recognition of these costs, the proposed groundwater monitoring in the proposed MRP allows the Discharger to utilize existing groundwater monitoring wells adjacent to the Putah Creek Research Facility installed for other University operations (see Groundwater Provisions).

Staff has reviewed the processes and discharges associated with the research activities at the CABA facility. The Aquatic Center evaporation/percolation pond receives wastewater from the Aquatic Disease Laboratory within the CABA facility. As required by the California DFG, the Discharger chlorinates the effluent for disinfection prior to discharge to the evaporation/percolation pond. The pond receiving wastewater from the infectious disease laboratory is designed for wastewater to infiltrate into the ground. Although the wastewater from the aquatic disease laboratory is disinfected, the Discharger is not always certain of the constituents in the wastewater due to the nature of the research operations.

To ensure minimal degradation of the underlying groundwater, the proposed MRP contains groundwater monitoring requirements to access compliance with groundwater quality limitations and monitor impacts from the evaporation/percolation pond. Comments received from Dr. Thomas Harter, Subsurface Hydrology Cooperative Extension Specialist at UC Davis, detail the area hydrogeology and the historic quality of groundwater in the vicinity of the CABA facility. Dr. Harter discusses the near-surface sediments and underlying sediments. Dr. Harter states that at depths of approximately 10 to 25 feet, there is “laterally extensive clay”. He also states that the depth to the initial groundwater in the area “typically ranges from 30’ near Putah Creek to over 50’ in areas not in the vicinity of Putah Creek.”

Based on the information supplied in these public comments, staff believes that reconsideration of the need for groundwater monitoring in the vicinity of the Aquatic Center ponds may be warranted. However, this information was

not provided with the Report of Waste Discharge or other information submitted by the Discharger during the development of the permit. Staff believes that further hydro-geological investigation is needed to confirm the Discharger's claim that the existing effluent monitoring will be indicative of groundwater quality and/or the effluent will not reach the low lying groundwater aquifer.

Based on the information supplied by the UC Davis Subsurface Hydrology Cooperative Extension Specialist, the groundwater monitoring requirement for the ponds receiving wastewater from the Aquatic Center is being removed. A requirement will be added to the proposed MRP for the Discharger to conduct the necessary investigation surrounding the Aquatic Center ponds to address the surrounding hydrogeology. The findings of the investigation must be incorporated in the required Monitoring Well Installation Work Plan. The Discharger must provide technical justification and hydrological information supporting that their proposed groundwater monitoring plan will provide the necessary information to determine compliance with groundwater quality requirements and prohibitions in the proposed Orders.

COMMENT NO. 4. Proposed Effluent Monitoring Requirements. Findings No. 45; Effluent Monitoring Schedule.

The Discharger states that the number of parameters to be monitored for, and the frequency of monitoring required, have increased dramatically from the existing Order No. 99-017. In addition, the Discharger states that operations at the CABA facility have not changed since the last permit was adopted.

RESPONSE

The CABA facility is a research operation that has the potential to discharge various aquacultural chemicals and drugs into waters of the US. The constituent monitoring required in the proposed MRP are established to be required on a selective basis to reflect the constituents used during different research project durations. Weekly, opposed to monthly, monitoring frequencies are required to capture the duration of short-term research activities that the Discharger states may last less than a month, thus minimizing the time period between the end of the research project and the next sampling event. Staff believes this is important due to the acute (and chronic) toxicity nature of the impacts associated with the chemicals and drugs being used at the facility.

In recognition of the Discharger's concerns regarding monitoring costs, the proposed MRP requires the Discharger to monitor only for those constituents that are in use. Staff does not believe the decreasing the monitoring

frequency from weekly to monthly, as requested by the Discharger, is indicative of compliance with effluent limitations during research projects of varying duration. Therefore, the proposed monitoring requirements remain unchanged.

However, staff believes that the monitoring frequency of constituents other than aquacultural chemicals and drugs, such as BOD_5, Total Suspended Solids, Settleable Solids, and EC can be reduced from monthly to quarterly monitoring. Additionally, acute and chronic toxicity frequencies may be reduced from quarterly to annually. These newly proposed monitoring frequencies, in conjunction with the effluent limitations and BMP requirements, maintain protection of the receiving water and provide economic relief to the Discharger.

Comments received from Mr. Ted Frink, California Department of Water Resources

Mr. Frink submitted comments expressing how important the research conducted by the Discharger at the CABA facility is to the Department of Water Resources. Mr. Frink supports the research activities performed at the CABA facility and supports the Discharger's request for decrease in groundwater monitoring due to high costs of monitoring and limited CABA facility operational budget.

(DWR provides funding to the CABA facility for the Discharger to conduct their agency research needs.)

RESPONSE
Comments noted.

Comments received from Dr. Thomas Harter, Subsurface Hydrology Cooperative Extension Specialist, University of California, Davis

Dr. Harter submitted comments in support of the Discharger comments regarding the groundwater monitoring requirements be removed. In his comments, Dr. Harter provides details on the hydrogeology of the area, past water quality of the groundwater, and information on the existing groundwater monitoring wells near the Putah Creek Research Facility. Dr. Harter also discussed his estimation of the potential groundwater impacts of formaldehyde and oxytetracycline.

RESPONSE
Comments noted.